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A Geno Technology, Inc. (USA) brand name

Reversible Copper Stain™

(Cat. # 786-32CU, 786-32DSCu)



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INTRODUCTION

The Reversible Copper Stain™ is a single step stain for the rapid detection of proteins fractionated by SDS-PAGE. No destaining is necessary. The stain is based on the interaction of copper ions with polyacrylamide and proteins. The stain works by depositing a copper metal precipitate in the gel, which turns the gel opaque green, while the SDS coating on the proteins prevents the stains from binding to the proteins. A negative image is produced; clear protein bands are detected against a semi-opaque blue polyacrylamide background. Protein bands are visualized in as little as 5 minutes. The sensitivity of the Reversible Stain™ is 8-12ng. Staining does not interfere with the electroelution of proteins or alter their biological properties. Gels stained with the *Reversible Copper Stain™* can be de-stained in 20-25 minutes before the transfer or electroelution of proteins. *This stain is not suitable for native gels or gels containing Tricine or Glycine.*

SENSITIVITY

As low as 10ng of BSA is visible in 12% acrylamide gel. Gels of less than 12% concentration will have reduced sensitivity because of increased pore sizes, which lends itself to diffuse protein bands. The kit components are suitable for 25 mini gels.

ITEM(S) SUPPLIED

Description	Cat. # 786-32Cu	Cat. # 786-32DSCu
Reversible Copper Stain™ [10X]	125ml	-
Copper Destaining Solution [10X]	125ml	500ml

STORAGE CONDITIONS

The kit is shipped at ambient temperature. Upon arrival, store it at room temperature. The kit is stable for 1 year when stored and handled properly.

STAINING PROTOCOL

Stain preparation

Dilute Reversible Copper Stain™ - 10 fold in a staining tray. For one mini gel, use 50ml diluted stain (5ml 10X stain mixed with 45ml pure water). Use 100ml diluted stain for large gels or several mini gels.

1. After electrophoresis, rinse gel with 50ml de-ionized water, 30-60 seconds for 0.5mm to 0.75mm gel thickness and 3-5 minutes for 1.0mm gel thickness, respectively.
2. Immerse gel in 50ml diluted 1X Stain (5ml 10X Stain in 45ml pure water). Gently rock the tray for 5 minutes at room temperature.
3. Wash the gel 2-3 minutes with water. Store the stained gel in de-ionized water.

Visualizing Gel Bands

Transfer the gel to a glass plate. Place a dark (black) sheet of paper under the glass plate and shine a bright light at an oblique angle above the gel. The gel protein bands will appear as dark bands against an opaque blue-green background.

DESTAINING

Destaining is not necessary for visualizing protein bands. However, gels may be de-stained for later transfer, blotting, electroelution, or staining the gel with other staining agents.

This kit is supplied with 125ml [10X] Destaining Solution. Additional Destaining Solution may be ordered (Cat. # 786-32DSCU).

Destaining Solution Preparation:

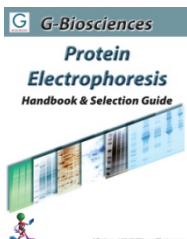
Dilute the Destaining Solution 10 fold with deionized water (e.g., 5ml Destaining solution in 45 ml water) for Step-1. Dilute 20 fold for Step-2 (e.g. 2.5ml in 47.5 ml water). Use 50 ml diluted Destaining solution per mini-gel and 100 ml for larger gels or several mini-gels.

1. Wash gel in deionized water twice, 5 minutes each. Immerse the gel in 10 fold diluted Destaining solution. Gently rock the tray for 15 minutes.
2. Wash the gel in de-ionized water twice, 1 minute each. Immerse the gel in 20 fold diluted Destaining solution. Gently rock the tray for 15 minutes or until the gel is completely de-stained.
3. Wash the gel in deionized water twice.

After Destaining, the gel is ready for silver staining, blotting, or other analysis. For Coomassie staining, such as RAPIDstain™, Destaining is not necessary. RAPIDstain™ also acts as destaining solution. For elution or transfer, equilibrate the gel or gel slice with elution or transfer buffer for 15 minutes. Electroelute or transfer using the same buffer.

RELATED PRODUCTS

Download our Protein Electrophoresis Handbook.



<http://info.gbiosciences.com/complete-protein-electrophoresis-handbook>

For other related products, visit our website at www.GBiosciences.com or contact us.



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